

WHAT IS CLAIMED IS:

Sub al > 1. A flat panel display, comprising:

5 a system including an image processing part for deciding a timing format of an image data and generating a control signal for the image data, an encoder for encoding the image data and the control signal output from the image processing part in an RSDS specification, a power output part for outputting a constant-voltage; and

10 a display module including:

15 a control board including a power supply part for converting the constant-voltage of the power output part into a predetermined voltage level, a gray scale generating part for generating a gray scale voltage using the predetermined voltage level of the voltage converting part, a gate voltage generating part for generating a gate on/off voltage using the predetermined voltage level of the voltage converting part, and a transmission line for transmitting the encoded image data and the control signal;

20 a first connecting member having a data driver for generating a column signal when the image data, the control signal and the gray scale voltage are applied;

25 a second connecting member having a scan driver for generating a scan signal when the control signal and the gate on/off voltage are applied; and

30 a flat panel for forming a picture using the scan signal and the column signal.

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2. The flat panel display of claim 1, wherein said data driver comprises:

35 a first decoding means for decoding the data and the control signal of the data;

40 a first register means for temporarily storing the data decoded by the first

decoding means; and

a first signal processing means for generating and outputting a column signal using the data stored in the first register means, the control signal and the gray scale voltage.

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3. The flat panel display of claim 2, wherein the data and the control signal are transmitted in a mixed signal within a single channel, are decoded by the first decoding means, are divided to be stored at a first register and a second register of the first register means, and are output to the first signal processing means.

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4. The flat panel display of claim 2, wherein the data and the control signal are separately transmitted through respective corresponding channels, are respectively decoded by a first decoder and a second decoder of the first decoding means, are divided to be stored at a third register and a fourth register of the first register means, and are output to the first signal processing means.

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5. The flat panel display of claim 1, wherein said scan driver comprises:

a second decoding means for decoding the control signal;

a second register means for temporarily storing the control signal decoded by

20 the second decoding means; and

a second signal processing means for generating a scan signal using the control signal stored in the second register means and the gate on/off voltage.

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6. A flat panel display comprising:

a signal converting board including an analog/digital converter for converting an analog data having an analog format and for forming a picture and a control signal for the analog data into a digital data and a digital control signal, an image processing part for deciding a timing format of the digital data and generating a control signal for the digital data, and an encoder for encoding the digital data and the digital control signal output from the image processing part in an RSDS specification; and

a display module comprising:

a control board including a power supply part for converting a constant-voltage into a predetermined voltage level, a gray scale generating part for generating a gray scale voltage using the predetermined voltage level of the voltage converting part, a gate voltage generating part for generating a gate on/off voltage using the predetermined voltage level of the voltage converting part, and a transmission line for transmitting the encoded image data and the control signal;

a first connecting member having a data driver for generating a column signal when the image data, the control signal and the gray scale voltage are applied;

a second connecting member having a scan driver for generating a scan signal when the control signal and the gate on/off voltage are applied; and

a flat panel for forming a picture using the scan signal and the column signal.

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7. The flat panel display of claim 6, wherein said data driver comprises:

a first decoding means for decoding the digital data and the digital control signal;

a first register means for temporarily storing the data decoded by the first

decoding means; and

a first signal processing means for generating and outputting a column signal using the data stored in the first register means, the control signal and the gray scale voltage.

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8. The flat panel display of claim 7, wherein the data and the control signal are transmitted in a mixed signal within a single channel, are decoded by the first decoding means, are divided to be stored at a first register and a second register of the first register means, and are output to the first signal processing means.

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9. The flat panel display of claim 7, wherein the data and the control signal are separately transmitted through respective corresponding channels, are respectively decoded by a first decoder and a second decoder of the first decoding means, are divided to be stored at a third register and a fourth register of the first register means, and are output to the first signal processing means.

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10. The flat panel display of claim 6, wherein said scan driver comprises:

a second decoding means for decoding the control signal;

a second register means for temporarily storing the control signal decoded by

the second decoding means; and

a second signal processing means for generating a scan signal using the control signal stored in the second register means and the gate on/off voltage.

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